TVSNEXT
Ai Digital Platforms

A GUIDE TO MIGRATION AND MODERNIZATION

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Transform Your Business

Businesses need to upgrade their systems and operations regularly to provide customers with an optimal experience. Moreover, technological advancement has compelled businesses and organizations to quickly adjust to the fluctuating trends and minimize time spent marketing and selling products. Application modernization, combined with cloud-based platforms, serves as an economical way for businesses to stay ahead of the trends.

The Private Cloud Market size was valued at US$ 85.57 Bn. in 2022 and the total Private Cloud revenue is expected to grow at 29.7% from 2023 to 2029, reaching nearly US$ 528.36 Bn.

However, modernization can prove costly for businesses that haven't invested in a methodological approach. If you plan to move forward with this initiative, you can implement strategically targeted transformation projects that encourage broader modernization. In this e-book, we discuss a structured process and way of thinking about application modernization and cloud adoption that can be tailored to your business needs.

How Application Modernization Helps Businesses

In a competitive market, application modernization emerges as a vital tool for businesses to stay ahead of the curve by elevating user experiences and streamlining operations. Leveraging this approach, businesses can remain relevant in an evolving landscape.

Improved Processes
Modernization enhances integration, testing, design, development, and deployment for seamless operations.

Cost Efficiency
It extends the lifespan of existing applications, reducing the need for costly new systems.

Technological Adaptability
It allows businesses to adapt quickly to technological advancements and market trends.

Streamlining Operations
It helps identify and eliminate redundant components for a streamlined system.

Resilience
It allows scalability and resilience, ensuring continuous system availability for businesses.

> Over 50% of companies prioritize upgrading legacy applications for enhanced security and efficiency, with nearly half emphasizing cost reduction and integration with contemporary technologies.

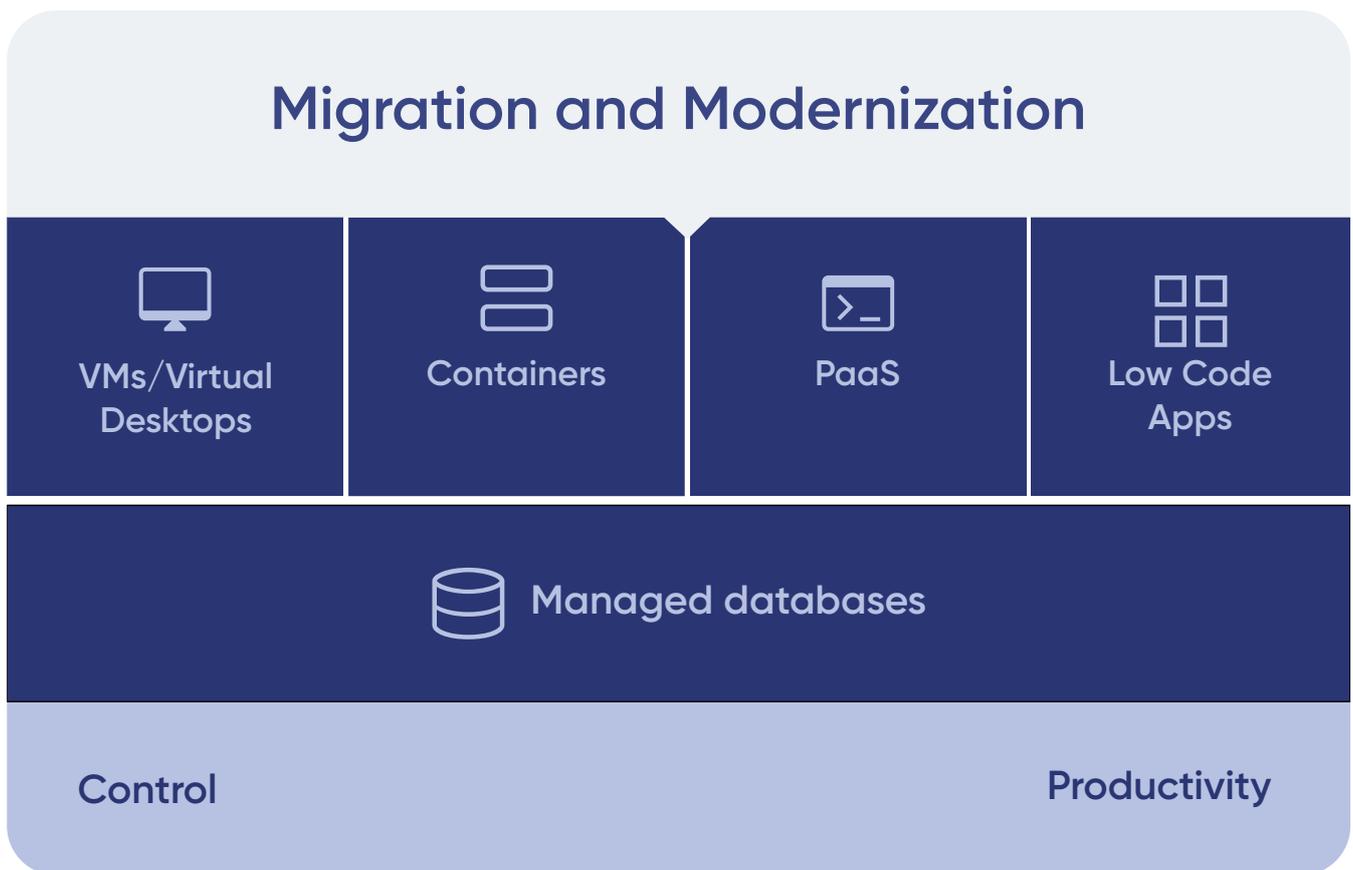# Thinking Strategically About Cloud Migration and Modernization

Migrating workloads to the cloud is a key strategy for organizations to transition from capital to operational expenses, gaining agility and scale.

However, this is merely the start of the cloud journey. Complete modernization requires evaluating and retooling existing workloads, leveraging Platform-as-a-service (PaaS) capabilities like built-in security, patching, high availability, and auto-scaling. Modernization might also include decomposing applications into replaceable or updatable modules.

Some organizations prefer quick lift-and-shift migration due to time constraints, while others extensively prepare applications for cloud deployment, prioritizing modernization. Both migration-first and parallel modernization are valid strategies.

Each migration and modernization journey is unique, hinging on workload complexity and business priorities.

Migration and Modernization

VMs/Virtual Desktops	Containers	PaaS	Low Code Apps

Managed databases

Control   Productivity

Common Triggers For Migrating and Modernizing

To chart the course of your cloud journey, the initial step involves gaining insight into your primary challenges and desired objectives. This understanding will be a foundation for shaping your migration and modernization strategy.

Migration Triggers

Modernization Triggers

Cash Flow Challanges, Capex To Opex

Cybersecurity Threats

Budget and Resource Constraints

Rapidly Scale Web Apps And Infrastructure

Application Innovation

Cost Optimization

Faster Time To Market

Enabling Remote Work

Datacenter Contract Expiry

Approach To Follow In Application Modernization

Businesses need to maintain feature parity with older versions during modernization, and inefficiently planned legacy migration can result in missed opportunities to eliminate unused features.

Therefore, components that are no longer required should be identified during the reengineering and redesign phases. A detailed action plan should be created by comparing user requirements with business goals and metrics.

This process ensures that business practices are optimized for maximum efficiency and productivity. Moreover, it also ensures a strategic and effective modernization of applications, thereby enhancing their performance, usability, and relevance in the ever-evolving digital landscape.

The process can be implemented in one of the following:

Redesign
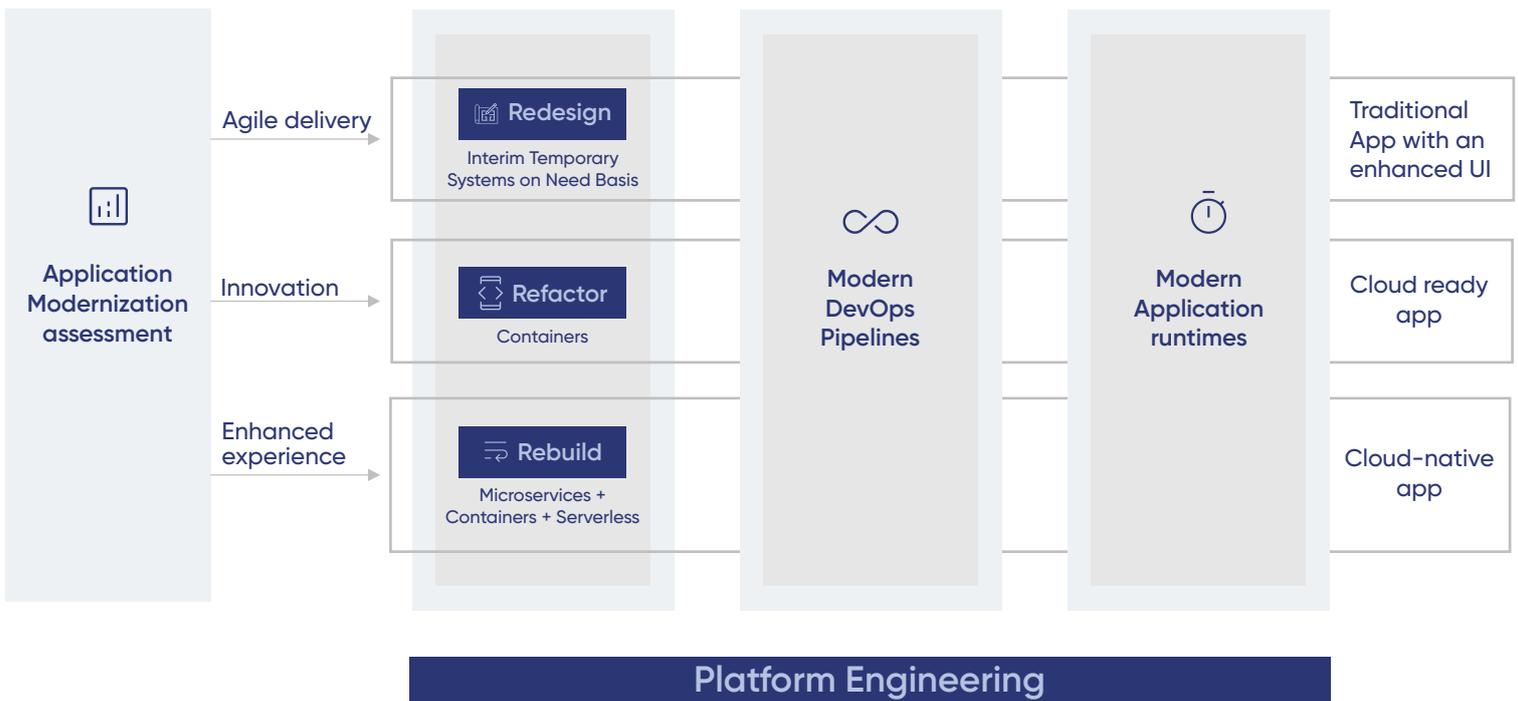Keep your existing systems, build a new user interface and enhance user experience.

Refactor
Containerize your applications and build new apps using old systems to leverage the benefits of cloud.

Rebuild
Build modern DevOps pipelines and modern application runtimes to create customized applications suited to your needs.

Modernization Journey

Unlock untapped potential

Assess your applications, discover user journeys, and prioritize high-impact business opportunities.

• User Research
Conduct research to learn what the users do.

• Journey Mapping
Map the user journeys to understand how your customers are experiencing your products and services across the value chain.

• Technology Assessment
Leverage tools to provide visibility into your software to continuously respond to change with speed and precision.

> *Forrester Research states that customer journey mapping can increase Customer satisfaction by* **13%**
>
> *- CMSWire*

Align user experience with modernization goals

Co-create solutions and outline a roadmap to align outcomes with objectives.

• Ideate and Prioritize Opportunities
Generate innovative concepts to meet unfulfilled user needs, foster new ideas that prioritize the development of products and services aligned with customer needs and business objectives.

• Reimagine User Interface
Leverage intuitive, behavioral, and minimalistic design principles to craft exceptional user experiences that allow users to complete the task quickly and easily.

• Prototyping
Seek feedback to understand how the reimagined user interface is effective enough for users to accomplish their goals

> *According to Forrester, better UI can improve conversion rates by* **200%***, and enhanced UX increases the conversion rate by* **400%**

Containerize monoliths

Wrap the application into a "container" and rewrite portions of your applications for optimized performance.

• Plan your migration to modern infrastructure

Leverage advanced technology for flexible, controlled component migration.

• Modernize and orchestrate your DevOps pipelines

Streamline and manage automated tasks for a dynamic DevOps workflow, producing elements like continuous integration, deployment, delivery, and testing.

• Optimize operations for maximum agility

Manage operations across your app lifecycle, reliably launching new apps quickly with a focus on market speed.

"

*At **46% Containerization**, it is the topmost software development priority for developers across the globe, followed by **quality and security (43%)** and **CI/CD improvement (32%)**.*

Expose and integrate using APIs

Expose existing applications as APIs to reuse for building new capabilities. Build new APIs to integrate future applications into the ecosystem.

• Expose
Make native APIs readily available to the business by configuring and exposing real-time integrations via APIs and third-party services.

• Build
Build new public, private, and partner API connectors to drive innovation and omnichannel experiences across platforms.

• Manage
Publish and govern APIs while managing data access, on-prem, cloud, or at the edge by leveraging suitable API Gateways.

"

A robust API strategy can help organizations unlock the full potential of their technology investments. Building new public, private, and partner API connectors can drive innovation and omnichannel experiences across platforms.

- Gartner

Refactor and add new microservices

Restructure existing applications into smaller & deployable components and create new microservices to manage scale, innovation, and complexity.

• Refactor the service
After you build and repackage the small services, initiate refactoring of the data structures that your applications are built on.

• Refactor the code
Repackage existing applications into microservices to keep systems running while you move to a sustainable development mode.

• Add new microservices
Create new microservices to drive new business functions.

60% *of all new applications worldwide are being built as microservices. It can lead to a* **75% reduction** *in system downtime and a* **20% increase** *in developer productivity.*

Deliver business assurance

Deliver authentic, real-world feedback on the quality of the digital experiences through continuous testing and deployment to drive confidence in every release.

• Deploying the Apps
An integrated and cohesive process to ensure maximum test coverage and speed to ensure flawless releases across the roadmap continuously.

• Governing the data
Managing data quality dimensions across completeness, conformity, consistency, accuracy, and integrity helps drive data governance, analytics, and AI/ML to deliver reliable and trustworthy results.

• Driving the experience
Deliver exceptional experiences on any device by measuring and detecting flaws throughout the assurance process.

> *Managing data quality dimensions across completeness, conformity, consistency, accuracy, and integrity helps drive data governance, analytics, and AI/ML to deliver reliable and trustworthy results.*
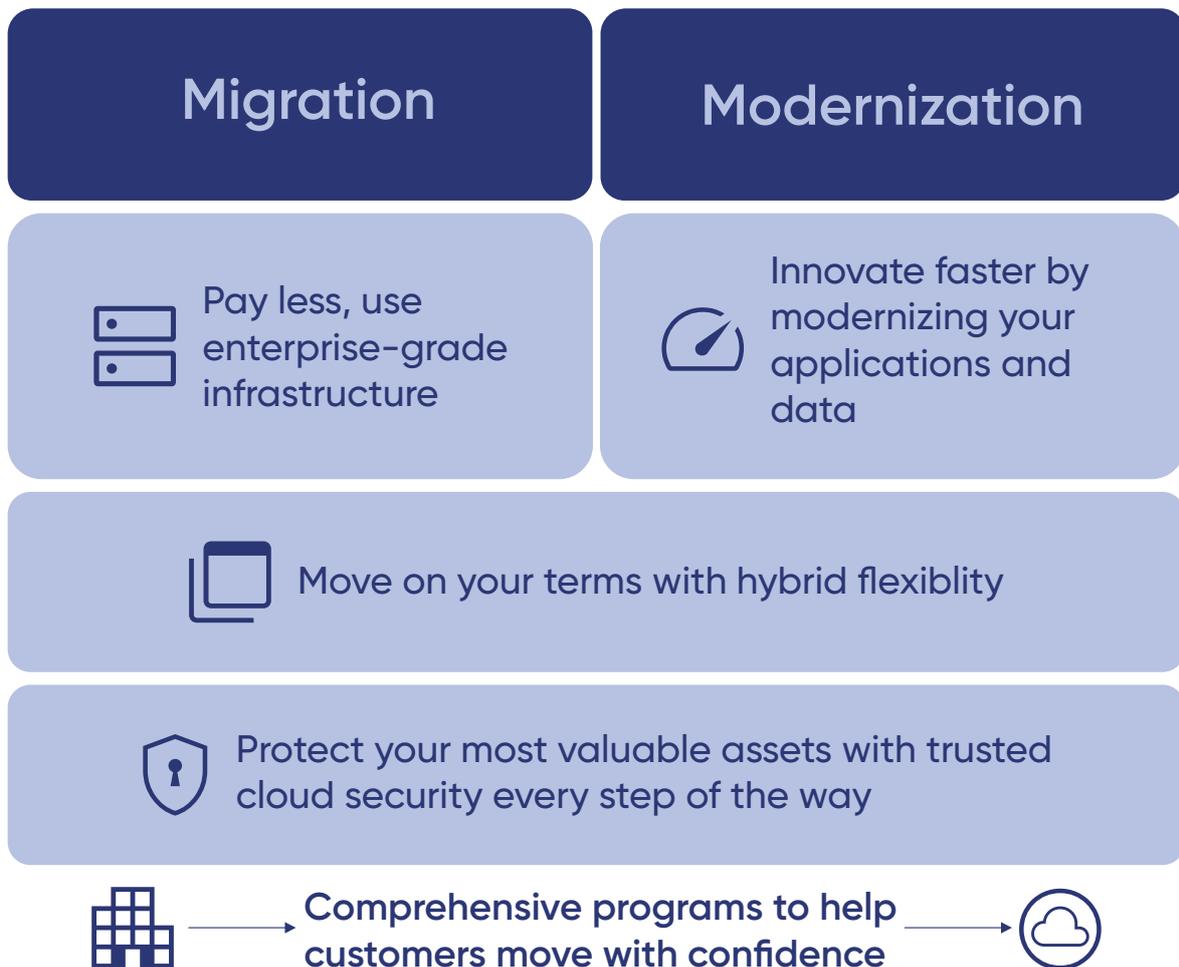>
> *– Forbes*

How TVS Next Can Help You Migrate And Modernize

Unlock the potential of your business with TVS Next. Gain resiliency and innovation to drive your business forward today and prepare for the future. By migrating to cloud IaaS technologies and adopting cloud operations models, you can unlock innovative practices and pave the way for further innovation with PaaS and fully managed services.

With TVS Next, you can focus on modernizing your application portfolio while we handle the operational burden. Our world-class expertise and AI-infused security intelligence ensure your security needs are covered.

You move on your terms with hybrid flexibility throughout. We have comprehensive programs to support you in your cloud transformation, every step of the way.

Migration

Modernization

Pay less, use enterprise-grade infrastructure

Innovate faster by modernizing your applications and data

Move on your terms with hybrid flexiblity

Protect your most valuable assets with trusted cloud security every step of the way

Comprehensive programs to help customers move with confidence

> Based on Microsoft's latest research, the global cloud computing market value is expected to reach a staggering **$1,240.9 billion by 2027.**

Are You Ready To Modernize?

Experience Seamless Transition

Get the right mix of expert help to simplify your journey and move your applications, data, and infrastructure with TVS Next. We help you reduce risk, offset transition costs, and skill-up your organization while ensuring a successful move.

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There is no alternative to digital transformation. Visionary companies will carve out new strategic options for themselves — those that don't adapt will fail.

- Jeff Bezos

40 Inspirational Digital Transformation Quotes [2023]. | Legacy Application Modernization: A Comprehensive Approach to Modernize Your Business. 6 Cost Benefits to Cloud Migration | Making the Most of Your Customer Experience Journey Maps. | UI/UX Application Modernization: Delivering Exceptional Experiences. | The State of Containers: Unraveling a Few Mysteries | Gartner's API Strategy Maturity Model. | Top Advantages and Disadvantages of Microservices: Biggest Benefits of Microservices and Key Use Cases. | The Importance of Data Governance in the Evolving Digital Business.

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